Challenges in Test Automation

SURVEY KEY RESULTS



The survey conducted by Katalon and KMS Technology with ToolsQA as the media sponsor in April-2018. The objective is to better understand and offer concrete evidence on challenges being faced by worldwide test professionals and their organizations with test automation.

USERS

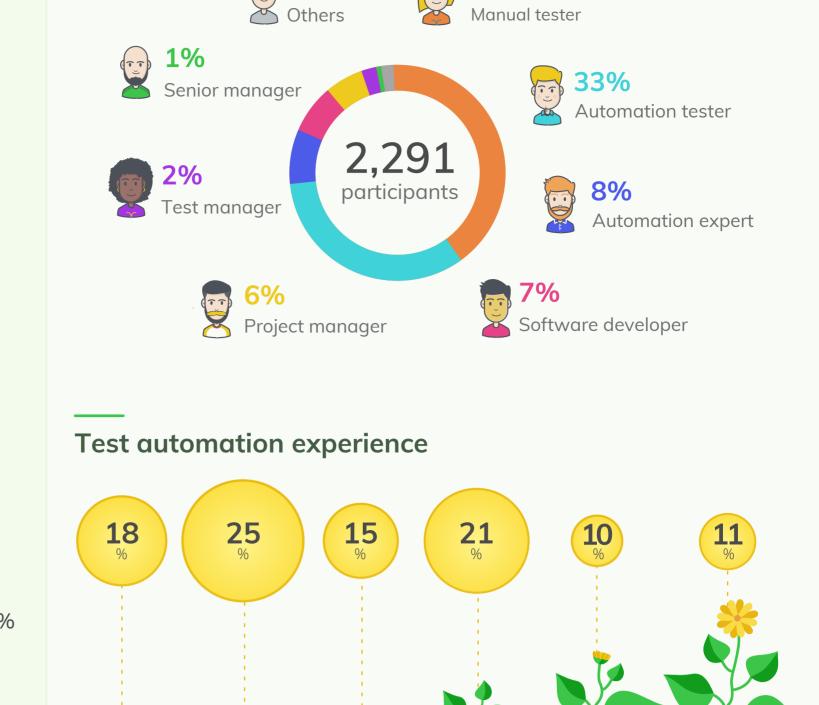
Respondent profile

Automation tester and

Manual tester (41%)

- expert (42%)

Manager (9%)



6 mos - 1 yr

1 - 3 yrs

38%

24%

3 - 5 yrs

5+ yrs

84%

skills

Functionality/

Feature-rich

84%

72%

Media sponsor: TOOLS

No prior experience: 18%

1+ years: 42%

• Less than 1 year: 40%

Selenium

Katalon Studio

Apache JMeter

TOOLS

< 6 mos

No prior

experience

Other popular tools: SoapUI

Over 100 automation

tools reported

84% have used

Selenium

- TestNG Protractor

Postman

- all else Other criteria: Test execution optimization

User community

CI, DevOps support

Managers prioritized

Feature-rich

Licensing and support

costs over Functionality/

Non-managers preferred

Good test reports over

- Other issues:

non-managers

Managers agreed more

with the challenges than

Lack of analytics reports

High maintenance costs

Functional and regression

common tests applying

Low automation adoption

for mobile, security, and

portability testing

Other challenges:

automation

- Lack of time for test

- Diverse applications &

platforms to test

DevOps integration

difficulties

testing are the most

automation

- Stiff learning curve

Appium 21% Cucumber 20% **UFT** 15% **Robot Framework** 9% **TestComplete** 6% **Rational Functional Tester** 5% 5% Ranorex 4% **Test Studio** Watir 3% Tricentis Tosca **TestPlant** 2% **Others** 17% Katalon users was one of the sources for the survey, which may explain the high Katalon Studio adoption percentage. Tool selection criteria Training Level of Good test 56% 54% 51% **Documentation** programming reports

Licensing & support costs

Tutorials





High cost of ownership

Applications change often,

Required programming skills

Framework experience and

functional requirements

Lack of support for testing non-

expertise needed

40%

37%

35%

28%

28%

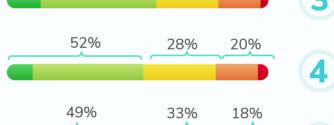
causing scripts to break

Non-managers

Level of skills

& experience

48%



Issues with existing tools

17% 11%

19%

24%

24%

72%

62%

57%

** To learn more about the result's details, visit www.katalon.com/surveys/ PROJECTS

Strongly Agree 📗 Agree Neutral 📗 Disagree 📕 Strongly Disagree

Integration Performance

Test types automated

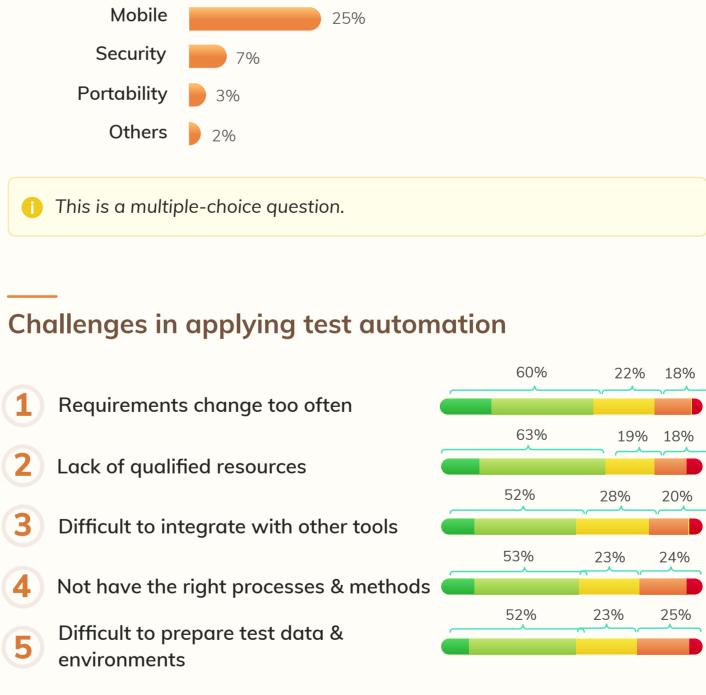
Functional

Regression

UI/ Usability

API testing

Smoke



Neutral

** To learn more about the result's details, visit www.katalon.com/surveys/

Disagree

Non-managers

Requirements change too often

• Difficult to integrate with other tools

Strongly Disagree

Strongly Agree Top two criteria by those with 1+ yrs of experience

Managers • Requirements change too often

Lack of qualified resources

Agree

SUMMARY

Selecting an automation testing solution is still a challenging and critical endeavor for any testing organization. Opensource-based solutions seem to be the preferable choice for the transition with low ownership cost, abundant training materials, and active user communities but require a high level of programming skills. Functional testing continues to be the top choice for automation primarily in regression and smoke test areas. API is apparently a new star, but surprisingly mobile is not even in the top five automated test types. The problems with automation stem from human resources, process, and tools to the application under test, suggesting that a successful test automation deployment is a synergy of the whole organization.

To learn more about the survey and download our whitepaper, please visit www.katalon.com/surveys/

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